

REMARKS

Reconsideration in view of the foregoing amendments and the following remarks is respectfully requested. Moreover, the applicant has reviewed the First (Non-Final) Office Action of June 9, 2009, and submits that this paper is responsive to all points raised therein.

I. Status of the Claims

Claims 37-55 and 62 are pending in the instant Patent Application.

Claims 37, 39, 40, 45, 48, 49, 51 and 52 have been amended

Claims 1-36 and 56-61 cancelled. This cancellation is made without prejudice.

Claim 62 is newly added.

It is respectfully asserted that the amendments are supported in the specification, drawings and originally filed claims as follows.

Support for the amendments to claims 37, 45 and 48, for example, is found in Figs. 4, 5, 7 and 10, originally filed claim 40, and in the specification at page 8, line 23, to page 9, line 4, page 13, lines 10-17, and page 18, lines 7-12.

Support for the amendments to claims 40 and 49, for example, is found in the specification at page 13, lines 10-17.

Support for the amendments to claim 51, for example, is found in the specification at page 18, lines 7-19.

Support for the amendments to claim 52, for example, is found in the specification at page 19, line 20 to page 20, line 2.

Claim 39 was amended for clarity and not to avoid prior art.

II. Claims 1-36 and 56-61

Claims 1-36 and 56-61 have been cancelled in response to a Restriction Requirement. This cancellation is made without prejudice. In making this cancellation,

the applicant reserves all rights in these claims to file divisional and/or Continuation patent applications.

III. Rejections Under 35 USC § 102

Claims 37-42 and 44-47

Claims 37-42 and 44-47 were rejected under 35 USC § 102(e) as anticipated by Diehl (U.S. Patent Publication No. 2005/0150074 A1) (Diehl '0074).

Claim 37 has been amended to recite the docking station including a first transmission part configured for electrical communication with a voltage source associated with the docking station, a robot configured for automatically docking with the docking station, the robot including a control system in electrical communication with the second transmission part, and the control system is configured to detect at least a threshold voltage from the docking station as received through the second transmission part. For example, as a result of this structure, detection of the threshold voltage confirms that the docking is sufficient, and as such, suitable for energy transfer for recharging the robot.

Diehl '0074 is directed to a charging station and a floor treatment unit whose power supply is recharged when “[e]lectrical energy from the charging station 14 can be transferred to the suction device [(floor treatment unit)] 12 via the electrical contact elements 82, 84 and the associated electrical contact pins 86 and 88, respectively, for charging the battery 46 [of the suction device 12].” Diehl '0074 at Paragraph 0047 .

There is not any disclosure of a threshold voltage being detected by the control system of suction device 12 based on voltage received from the charging station 14. Rather, the Examiner's references to paragraphs 0004, 0037 of Diehl '0074 refer to a voltage detected by the suction device 12 from the battery of the suction device 12, in order to begin to steer the suction device 12 toward the charging station 14 for recharging. Additionally, the Examiner's citation of paragraph 0046 of Diehl '0074

merely discloses the structures in which energy for recharging is transferred from the charging station 14 to the suction device 12.

As Diehl '0074 fails to show or otherwise disclose any structure equivalent or analogous to that for detecting a threshold voltage in the suction device 12, analogous to the claimed robot, from the charging station 14, analogous to the claimed docking station, Diehl '0074 fails to meet all of the structural limitations of claim 37. Accordingly, this rejection under 35 USC § 102(e) is improper and should be withdrawn. Claim 37 is allowable over the art of record. For similar reasons, the Applicant submits that the rejection of claim 45 is also improper and should be withdrawn, as claim 45 is also allowable over the art of record.

Since claims 37 and 45 are not anticipated by Diehl '0074 under 35 USC § 102(e), claims 38-42 and 44, and 46 and 47, respectively dependent thereon, are also not anticipated by Diehl '0074 and allowable over the art of record for at least the same reasons. These claims additionally distinguish over Diehl '0074.

Claims 48, 49 and 53-55

Claims 48, 49 and 53-55 were rejected under 35 USC § 102(b) as anticipated by Keith (U.S. Patent No. 5,598,084) (Keith '084).

Claim 48, as amended, recites responding to a signal in a wire defining a boundary, automatically moving to a docking station by traveling along at least a portion of the wire, attempting to cause a docking engagement with the docking station, the docking station including a first transmission part, by moving a second transmission part on the robot into electrical contact with the first transmission part, and, determining if the electrical contact is at least at a predetermined energy level.

Keith '084 discloses a system for charging electric vehicles. The vehicle, that appears to be an automobile (Figs. 18-20), includes a probe 52 that is received in a head 45, for energy transfer for recharging the vehicle. There is not any disclosure as to the

vehicle traveling along a wire, and the lines/wires referred to in Col. 5, lines 27-34 and Col. 5, lines 44-48 are not a guidance path, but rather electrical or signal carrying lines for the head 45. Moreover, the vehicle is aligned manually, and is not automatically docked, as with the claimed robot and docking station.

Based on the above, Keith '084 lacks any structure for traveling along a wire or responding to a signal generated by this guidance path wire. Additionally, the Keith '084 vehicle does not dock automatically, in contrast to that of the claimed robot. Accordingly, this rejection under 35 USC § 102(b) is improper and should be withdrawn. Claim 48 is allowable over the art of record.

Since claim 48 is not anticipated by Keith '084 under 35 USC § 102(b), claims 49 and 53-55, dependent thereon, are also not anticipated by Keith '084 and allowable over the art of record for at least the same reasons. These claims additionally distinguish over Keith '084.

IV. Rejections Under 35 USC § 103(a)

Claim 43

Claim 43 was rejected under 35 USC 103(a) as obvious under Diehl '0074 in view of Osawa (U.S. Patent No. 6,764,373) (Osawa '373).

Claim 43 includes all of the limitations of at least claim 37, from which it depends.

Diehl '0074 has been discussed above. That discussion is applicable here. Osawa '373, cited to disclose a transmitter that transmits a magnetic field between a robot and a charging station, fails to cure the deficiencies of Diehl '0074.

Accordingly, the combination of Diehl '0074 and Osawa '373 fails to meet all of the limitations of claim 37, and also claim 43. Claim 43 is therefore not rendered obvious.

by Diehl '0074 and Osawa '373, whereby this rejection is improper and should be withdrawn.

Claims 50 and 52

Claims 50 and 52 were rejected under 35 USC 103(a) as obvious under Keith '084 in view of Saitou (US Patent Application Publication No. 2005/0041839 A1) (Saitou '1839).

Claims 50 and 52 include all of the limitations of at least claim 48, from which they depend.

Keith '084 has been discussed above. That discussion is applicable here

Saitou '1839, cited to disclose a battery of a robot that is powered by electricity when connected to a charging stand and a charge sensor tied to the battery and a control unit, for claim 50, and signaling a robot to resume operation once its power supply is charged, claim 52, fails to cure the deficiencies of Keith '084.

Accordingly, the combination of Keith '084 and Saitou '1839 fails to meet all of the limitations of claim 48, and also claims 50 and 52. Claims 50 and 52 are therefore not rendered obvious by Keith '084 and Saitou '1839, whereby this rejection is improper and should be withdrawn.

Claim 51

Claim 51 was rejected under 35 USC 103(a) as obvious under Keith '084 in view of Schliesing (US Patent No. 4,860,975) (Schliesing '975).

Claim 51 includes all of the limitations of at least claim 48, from which it depends.

Keith '084 has been discussed above. That discussion is applicable here

Schliesing '975, cited to disclose attempting redocking due to the electrical contact not at the predetermined level or if an electrical contact is not made, fails to cure the deficiencies of Keith '084.

Accordingly, the combination of Keith '084 and Schliesing '975 fails to meet all of the limitations of claim 48, and also claim 51. Claim 51 is therefore not rendered obvious by Keith '084 and Schliesing '975, whereby this rejection is improper and should be withdrawn.

V. New Claim 62

Support for new claim 62 is found, for example, in the Specification at page 13, lines 13-17.

According to new claims 62, the predetermined energy level includes a predetermined voltage level. Diehl '0074 fails to disclose this feature, as it does not require a predetermined voltage to be met prior to charging the battery of the suction device 12, analogous to the claimed robot. The Applicant submits that this provides further reasons for the allowability of claim 62 over the cited art.

VI. Conclusion

Should the Examiner have any question or comment as to the form, content, or entry of this paper, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Allowance of all pending claims, 37-55 and 62, is respectfully requested.

The applicants believe that other than a fee associated with a two (2) month Extension of Time, extending the response date to November 9, 2009, and an additional dependent claim, no further fees are currently due.

During the pendency of this application, the Commissioner for Patents is hereby authorized to charge payment of any filing fees for presentation of extra claims under 37 CFR 1.16 and any patent application processing fees under 37 CFR 1.17 or credit any overpayment to Mendelsohn, Drucker, & Associates, P.C. Deposit Account No. 50-0782.

The Commissioner for Patents is hereby authorized to treat any concurrent or future reply, requiring a petition for extension of time under 37 CFR 1.136 for its timely submission, as incorporating a petition for extension of time for the appropriate length of time if not submitted with the reply.

Respectfully submitted,
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